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Forage News [2019-04]

University of Kentucky Department of Plant and Soil Sciences

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Forage News

Keeping Forage-Livestock producers in Kentucky informed
Dr. S. Ray Smith and Krista Lea, MS.~ Editors

April 2019

Register today for the Kentucky Grazing School

The 2019 Spring Grazing School will be April 23-24 in Princeton, KY. Informational sessions will be held at the Central Presbyterian Church, with hands-on activities taking place at the University of Kentucky Research & Education Center. Hosted by the Master Grazer program, the school begins at 7:30am and ends at 5:30pm CST. Presenters will offer valuable grazing methods for new and experienced graziers with the goal to extend the grazing season and minimize stored feed. Every day we can meet the animal's nutritional needs from a grazed pasture is money saved!

On the first day, participants will work in groups to install a rotational grazing system then allocate cattle to the paddocks constructed by each group. On the second day, participants will observe the grazed paddocks and hear reports from each group. Representatives from UK College of Agriculture, Food and Environment and Gallagher North America will present a variety of topics like benefits of rotational grazing, temporary fencing, portable/seasonal water systems, economics of grazing, and rejuvenating run-down pastures as well as local producers discussing what works on their farms. Sponsors include the Kentucky Forage & Grassland Council, UK Master Grazer Program, Kentucky Agricultural Development Fund, and the Kentucky Beef Network.

Preregistration is necessary, and enrollment is limited to the first 45 participants. Registration is only \$50 and includes all materials, grazing manual, breaks and lunch for both days. Register online at <https://2019springkygrazing.eventbrite.com> or call Rehanon Pampell, at 270-365-7541.

Fencing School spaces still open in Burkesville and Russellville

The 2019 Kentucky Fencing School in Lexington is sold out, but spaces are still available in Burkesville (4/11) and Russellville (5/30). Presenters will offer the newest fencing methods and sound fencing construction with classroom and hands-on learning.

The first half of the day is spent in a classroom reviewing fence construction basics, Kentucky fencing laws, and electric fencing basics. After a catered lunch, participants will venture to a local farm and install two types of fences: fixed knot high tensile woven wire fencing and electrified smooth high tensile fencing. Sponsors include the Gallagher North American, Stay-Tuff Fencing, UK Master Grazer Program, Kentucky Agricultural Development Fund, and the Kentucky Beef Network.

You can find registration links to both schools on the event page of the UK Forage Extension Website, <https://forages.ca.uky.edu/events> or call Rehanon Pampell at 270-365-7541.

Publication of the Month: Bermudagrass: A Summer Forage in Kentucky (AGR-48)

Climatically, Kentucky lies within a transition zone, where extreme temperatures and variations in rainfall occur. Cool-season grasses, such as tall fescue, orchardgrass, Kentucky bluegrass, and timothy, are well adapted to this zone. However, forage productivity and quality of these species typically reach seasonal lows in the midsummer months, when cool-season grasses grow more slowly.

Bermudagrass can be used successfully as part of a livestock forage program to supplement summer production of cool-season grasses. It is high-yielding, sod-forming, warm-season perennial grass that is most productive on well-drained, fertile soils. Bermudagrass is widely grown in the southern United States for pasture and hay.

Like other warm-season plants, bermudagrass makes its best growth at 80-90° F. Growth is very slow when temperatures are below 60° F and also tends to decline above 95° F. In most years, bermudagrass growth starts in late April and continues rapidly until mid-September, when it is limited by cooling temperatures. Thus, bermudagrass is very productive during June, July, and August.

Forage Timely Tips: April

- ✓ Graze winter annuals that were inter-seeded into thin pastures last fall.
- ✓ Graze cover crops using temporary fencing.
- ✓ As pasture growth begins, rotate through pastures quickly to keep up with the fast growth of spring.
- ✓ Creep-graze calves and lambs, allowing them access to highest-quality pasture.
- ✓ Finish re-seeding winter feeding sites where soil disturbance and sod damage occurred.
- ✓ As pasture growth exceeds the needs of the livestock, remove some fields from the rotation and allow growth to accumulate for hay or haylage.
- ✓ Determine need for supplemental warm season forages such as pearl millet or sudangrass.
- ✓ Flash graze pastures newly seeded with clovers to manage competition.

Wise use of cool-season perennial grasses and legumes in combination with bermudagrass can help extend the grazing season and reduce the demand on winter feed supplies. However, the potential for winterkill always exists for bermudagrass in Kentucky, so consider only the most winter-hardy varieties. In Kentucky, planting dates should be targeted for early May through mid-June if irrigation is not available. Bermudagrass should also be planted in a well tilled seedbed. Download the full publication on our website. <https://forages.ca.uky.edu/publications>.

More Stuff Not in the Book

Sometimes the book does not have the answers. Take establishing forage crops for example. There are sound principles for this process in the book; adherence to them maximizes the chance for success. Sometimes breaking one of them is a risk worth taking. The rule I am thinking of is seeding cool season grasses in spring rather than fall.

The two week period at the first of April is a potential seeding period for cool season forages, including cool season grasses. The 'book' as well as forage experts tend to discourage spring seedings of grasses like tall fescue because the success rate for this period is much lower than fall. Fescue seedlings are slow to emerge and remain a slender spike for a long period. These young plants do not fare well against the heat and aggressive weeds of summer.

But this spring, seeding tall fescue into torn up hay feeding areas may be a risk worth taking. Taking this risk (spring planting) is the only chance to have the kind of stand of grass needed to support cattle when hay feeding begins again next year. Here is the way to manage the risk associated with seeding tall fescue in the spring.

Plant as soon as possible. Hay feeding areas are going to need tillage and smoothing prior to seeding which may delay planting. Get the tillage done as soon as possible and be ready to seed immediately afterward.

Seed at a higher than normal seeding rate. Normal seeding rates of tall fescue range from 15 to 25 lb per acre. Use at least 25 pounds per acre. There is not perfect seeding rate for this situation, although there is a thumb rule for seeding problem areas that says use double the recommended rate. A rate of 30-40 pounds per acre is a reasonable amount.

Plant shallow and get good seed-soil contact. Grass seed needs to be no more than ½ inch deep, maximum. If using a no-till drill into tilled ground, be very careful not to bury the seed because the cutting coulters will go too deep if you are not careful. When drilling, go over the field twice, with the rows at right angles using a half rate of seed each time. This will speed up ground coverage.

Broadcasting the seed followed by a corrugated roller is a great way to get shallow seed placement, good seed soil contact. Seedings made from this method are quick to give ground cover. Rollers and billion-type seeders can be hard to find, but they are ideal for seeding small forage seeds on prepared seedbeds.

Get a soil test for the field and be ready to topdress in mid-summer or early fall as needed. Hay feeding areas are likely high in fertility, at least P and K. Mark your calendar now for application of some late summer (mid to late August) nitrogen to



Spring seedings of cool season grasses are a risk, with an uphill battle against summer heat, invasive weeds and even competition from companion clovers, such as crimson clover above. Seedling grasses such as shown above emerge slower than legumes and are slower to form a canopy. A spring seeding of tall fescue on hay feeding areas is a risk we must take to get a thick stand of grass before next hay feeding season.

stimulate fall growth. Remember that top growth is proportional to root growth, and we need all the roots and soil structure we can get for next winter.

Prepare for weeds. You are going to have weeds on this site. Weeds are more easily controlled when small, so keep an eye on the field to know when they are small and tender. We have many options for controlling small broadleaf weeds – be ready to use one of them (See Broadleaf Weeds of KY, AGR-207, on the forage website. Grassy weeds are a problem that we will just have to deal with by mowing or flash grazing.

Don't graze this area except as needed to remove a canopy of crabgrass or other summer grasses. These new seedlings are going to need time to establish. Just getting through the summer is going to be stress enough.

Plant only grass. In this case, tall fescue. Especially don't include fast establishing legumes like red and white clover. They also form a leaf canopy much faster than seedling grasses. Low rates of a small grain (like 1lb/a oats) can be added for rolling sites to help control erosion.

Spring seedings of tall fescue are difficult but not impossible. Control the factors you can, and you manage the risks associated with these plantings. Finally, fall stockpile the fescue to produce the maximum growth possible before your next hay feeding season. ~ Dr. Jimmy Henning, Farmers Pride.

Upcoming Events (see website for details and online registration)

APR 9 - Spring KY Fencing School, Lexington, KY - **FULL!**

APR 11 - Spring KY Fencing School, Burkesville, KY

APR 23 - Spring Grazing School, Princeton, KY

MAY 2 - OAK Field Day, Georgetown, KY

MAY 30 - Spring KY Fencing School, Russellville, KY

MAY 30 - Equine Field Day, Lexington, KY

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see blue.

Additional content on pages 3-4

Simplifying Grain Drill Calibration

Grain drill calibration is a critical yet often ignored part of successful forage establishment and pasture renovation. Planting lower seed rates than recommended can result in thin stands susceptible to weed encroachment.

Planting more than the recommended seeding rate is undesirable due to the high seed cost of improved forage varieties. Most farmers just use the seeding chart already on their grain drill. As drills wear, and tires and cogs get replaced, actual seeding rates can vary significantly from seeding charts found on drills.

We have designed a simple and straightforward calibration method that can be applied across a wide range of grain drill types and manufacturers. This method is centered on a pre-made chart that allows producers to determine the quantity of seed to catch for each disk opener for a desired seeding rate. This minimizes the need for producers to carry out detailed mathematical calculations.

In order to calibrate the drill using this method, you will need the following items: a container to catch the seed, tape measure to determine the circumference of the drive wheel and the disk opener spacing, flags to mark stopping and starting points for in-field calibration, a floor or bottle jack for stationary calibration and a gram scale with 0.1-gram accuracy.

This procedure and chart were made into a decal that can be affixed to grain drills. This decal has been distributed to counties and soil and water conservation districts in Kentucky that have drills that are loaned or rented. See the full article at <https://www.progressiveforage.com/forage-production/planting/simplifying-grain-drill-calibration> ~ J.M. Buckman, H. Adams, C.D. Teutsch, printed in Progressive Forage

STEP 4: Using the table below, determine grams of seed to catch per disk opener. See example below.

Distance between disk openers (inches)	Seeding rate in pounds/acre																						
	2	4	6	8	10	12	14	16	18	20	25	30	35	40	50	60	80	100	120	140	160	180	
6	1.6	3.1	4.7	6.3	7.8	9.4	10.9	12.5	14.1	15.6	19.5	23.5	27.4	31.3	39.1	46.9	62.5	70.4	78.2	93.8	109.4	125.1	140.7
7	1.8	3.6	5.5	7.3	9.1	10.9	12.8	14.6	16.4	18.2	22.8	27.3	31.9	36.5	45.6	54.7	72.9	82.0	91.1	108.4	127.6	145.8	164.1
7.5	2.0	3.9	5.8	7.8	9.8	11.7	13.7	15.6	17.6	19.5	24.4	29.3	34.2	39.1	48.9	58.6	78.2	87.9	97.7	117.3	136.8	156.3	175.9
8	2.1	4.2	6.3	8.3	10.4	12.5	14.6	16.7	18.8	20.9	26.1	31.3	36.5	41.7	52.1	62.6	83.4	93.8	104.3	125.1	146.0	166.8	187.7

New Mandatory Paraquat Training Requirements for Applicators

This fall, there will be new labeling on all paraquat products sold in the U.S. Paraquat is sold under the product names of Cyclone Star, Cyclone, Devour, Firestorm, Gramoxone, Helmquat, Para-shot, Paraquat, and Parazone. With these newly labeled products, certified applicators must now take a paraquat-specific training before use and applications “under the direct supervision” of a certified applicator will not be allowed. Paraquat-specific training must be repeated every 3 years. The Environmental Protection Agency (EPA) is allowing the sale of paraquat that is already in the pipeline, so some paraquat without the new labeling requiring the training may be sold this growing season. If the training requirement is on the label of the product to be used, applicators must complete the training before use. Growers that currently have a supply of paraquat that does not have the new labeling listing are not required to complete the training. Besides the paraquat-specific training, the EPA is implementing other measures to help prevent poisonings, which include:

- Restricting the use of all paraquat products to certified applicators only.
- Clarifying toxicity on the label in English and Spanish
- Skull and crossbones symbol and “DANGER-ONE SIP CAN KILL” on the container.
- A “product package safety requirements” sticker attached to the container.

As with any pesticide application:

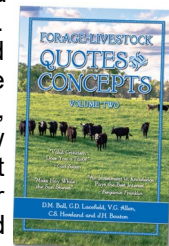
- Read and follow all label directions
- Keep the product in its original packaging, and
- Never transfer the materials into any type of food container.

Poisonings have occurred because paraquat has been illegally transferred into drink containers. Since the year 2000, there have been 17 deaths due to paraquat poisoning; several of those resulted when this pesticide was transferred to beverage containers. A single sip can be fatal.

Paraquat-specific training is available for paraquat users at their convenience at How to Use and Handle Paraquat-Containing Products. Once the user successfully completes the training, a certificate will be automatically generated. Applicators are required to retain certificates of training completion. ~ Ric Bessin, from KY Pest News

Quote of the Month: Management Makes A Difference

It often happens that a forage-livestock producer plants a new forage variety for pasture or hay and gets outstanding results. This may be at least partially because it represents a triumph of plant breeding. However, it may simply be that in the process of establishing the new planting, the manager has imposed management such as weed control and application of lime and fertilizer, and has monitored the field more closely than usual. In addition, cultivation may have increased decomposition of soil organic matter, releasing nutrient and favoring other plant growth factor. In many cases, the higher cost of the new variety caused the producer to practice a higher level of management, perhaps subconsciously. The point is that in many cases, forage crops already on a farm may have the potential to be as productive, or nearly as productive, as new forages; they just need better management. Forage-Livestock Quotes and Concepts, vol. 2 is available online at foragequotebook.com.



Grass-Fed and –Finished Beef Production & Marketing: an OAK Field Day - May 2, 2019, 1-4, Elmwood Stock Farm, Georgetown

Through a visit to Elmwood Stock Farm's pastures and discussion, participants will learn about the Farm's strategies for raising certified organic, grass-fed, grass-finished beef, including their regenerative grazing and rotation practices, disciplined management of year-round forage, and an understanding of their animals' development and genetics. Participants will learn about Elmwood's approach to direct-marketing pure grass-finished beef to customers, including high-quality processing; selection and cooking preparation of meat cuts; and consumer education. Elmwood Stock Farm is a 550-acre certified organic multi-generational family farm in Scott County, producing vegetables, beef, poultry, and lamb for local and regional markets. This OAK Field Day is open to all; pre-registration is required. Cost is \$5 for OAK members; \$10 for non-members. [www.Oak-ky.org/field days](http://www.Oak-ky.org/field%20days) or 502-517-9629